CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

April 4, 2016

System No. 5010017

Mike Willett, Director of Public Works
City of Patterson Cove
1 Plaza
Patterson, CA 95363

TRANSMITTAL OF CITATION NO. 01-10-16C-005

The City of Patterson (hereinafter "City") water system (No. 5010017) failed to test all of its backflow prevention devices in 2013, 2014, and 2015. The State Water Resources Control Board, Division of Drinking Water, has issued Citation No. 01-10-16C-005, in response to this violation. The Citation is being transmitted to the City under cover of this letter.

Please respond to the Directives of this Citation by the deadlines established with each item. If you have any questions regarding this Citation, please contact Brian Kidwell by email at Brian.Kidwell@waterboards.ca.gov or by phone at (209) 948-3963.

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Attachments:
Citation No. 01-10-16C-005

Certified Mail No. 7004 2890 0002 0057 9881

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STATE OF CALIFORNIA

WATER RESOURCES CONTROL BOARD

DIVISION OF DRINKING WATER

TO: City of Patterson
1 Plaza
Patterson, CA 95363

Attn: Mike Willett, Director of Public Works
City of Patterson

CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 7605(C)
FAILURE TO TEST EACH BACKFLOW PREVENTION DEVICE ANNUALLY
WATER SYSTEM NO. 5010017
C I T A T I O N NO. 01-10-16C-005
Issued on April 4, 2016

The State Water Resources Control Board (hereinafter "Water Board"), acting by and through its Division of Drinking Water (hereinafter "Division") and the Deputy Director for the Division (hereinafter "Deputy Director"), hereby issues this Citation (hereinafter "Citation") pursuant to Section 116650 of the California Health and Safety Code (hereinafter "CHSC") to the City of Patterson (hereinafter "City") for failing to test all of its backflow prevention devices, in 2013, 2014, and 2015, as required by Section 7605(c) of the California Code of Regulations.

APPLICABLE AUTHORITIES

Section 116650 of California Health and Safety Code provides:

(a) If the Division determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the Division may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

(b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.

(c) A citation may specify a date for elimination or correction of the condition constituting the violation.

(d) A citation may include the assessment of a penalty as specified in subdivision (e).

(e) The Division may assess a penalty in an amount not to exceed one thousand dollars ($1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation.

Section 7605(c) of the California Code of Regulations provides, in relevant part:

Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.

STATEMENT OF FACTS

The City's water system is operated under Water Supply Permit No. 01-008-90, which was issued on November 5, 1990.

The City water system is publically owned, and operated by the City's Public Works Division. The City's water system is located in Stanislaus County, on Interstate 5, approximately 15 miles southwest of the City of Modesto. The City's service area is approximately 6 square miles in size. The City water system is classified as a community water system that serves primarily residential customers living within the City's service area. The current water system serves approximately 21,094 people through 6,268 service connections. Groundwater is obtained through the water system's seven wells. The City disinfects the groundwater and stores it in three water storage tanks. The distribution system is maintained as three pressure zones.

During the Division's review of the City's 2015 Annual Report, it was noted that only 258 of 486 backflow prevention devices were tested during 2015. According to past Annual Reports, the City has failed to test all of its backflow prevention devices for the past three years.

- In 2013, 435 of 483 backflow prevention devices were tested
- In 2014, 321 of 488 backflow prevention devices were tested

- In 2015, 258 of 486 backflow prevention devices were tested

The City was instructed to test all backflow prevention devices annually, via the attached 2015 Inspection Report Memorandum, which was issued on January 22, 2015:

> 14. Cross-Connection Control
>
> According to the Annual Report to the Division, there are a total of 483 backflow prevention devices in the system and 435 were tested in 2013. All backflow prevention devices must be tested every year. The City shall test all 483 of the backflow prevention devices annually.

In the City's attached response to the 2015 Inspection Report Memorandum, dated February 12, 2015, the City Stated:

> All backflow prevention devices are tested annually and we will continue to comply with cross-connection rules.

DETERMINATION

The Division has determined that the City failed to comply with the requirements of Section 7605(c) due to the fact that the City failed to test all of its backflow prevention devices during 2013, 2014, and 2015. Therefore, the City is in violation of Section 7605(c) of the California Code of Regulations.

DIRECTIVES

The City is hereby directed to take the following actions:

1. The City shall test all of its backflow prevention devices by September 30, 2016. The City shall also submit a backflow prevention device testing status report to the Division by October 14, 2016.

2. The City shall submit a plan to the Division which outlines a process to ensure that all backflow prevention devices are tested at least annually. The City shall submit this plan for review and approval by no later than April 30, 2016.

The Division reserves the right to make such modifications to this Citation as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Citation, and shall be deemed effective upon issuance.

Nothing in this Citation relieves the City of its obligation to meet the requirements of the California Safe Drinking Water Act, or of any regulation, permit, standard, or order issued or adopted thereunder.

All submittals required by this Citation shall be submitted to the Division at the following address:

Brian Kidwell, P.E.
Associate Sanitary Engineer
State Water Resources Control Board, Division of Drinking Water
31 E. Channel Street, Room 270
Stockton, CA 9202

PARTIES BOUND

This Citation shall apply to and be binding upon the City, its officers, directors, shareholders, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The Directives of this Citation are severable, and the City shall comply with each and every provision thereof, notwithstanding the effectiveness of any other provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the Board to: issue citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any permit, regulation, permit or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the Board to take action to suspend or revoke a permit that has been issued to a public water system if the system has violated applicable law or regulations or has failed to comply with an order of the Board; and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with violates an order of the Board. The Board does not waive any further enforcement action by issuance of this citation.

4-4-2016
Date

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
Division of Drinking Water
State Water Resources Control Board

Attachments:

1. Inspection Report Memorandum
2. City's Inspection Report Memorandum Response

Certified Mail No. 7004 2890 0002 0057 9881

State Water Resources Control Board
Division of Drinking Water

TO: Bhupinder Sahota, P.E.
District Engineer
DIVISION OF DRINKING WATER

FROM: Brian Kidwell, P.E.
Associate Sanitary Engineer
DIVISION OF DRINKING WATER

DATE: January 22, 2015

SUBJECT: 2015 INSPECTION OF THE CITY OF PATTERSON DOMESTIC WATER SYSTEM (SYSTEM NO. 5010017)

The inspection of the City of Patterson (City) water system was performed by Brian Kidwell, Associate Sanitary Engineer, of the State Water Resources Control Board, Division of Drinking Water (Division) on January 16, 2015, with the assistance of Robert Andrade, Deputy Director of Operations.

The water system is well-maintained and operated. The system's seven wells, hydro pneumatic tanks, booster pump station, water storage tanks and distribution system appeared to be well-maintained at the time of the inspection.

SECTION I of this memorandum describes deficiencies or items of note that require attention.

SECTION II includes a summary of the City's water quality monitoring.

SECTION I – Items Requiring Attention

1. Pump Safety Screens

It was noted during the inspection that many deep well turbine pump motor shafts are not properly screened. The pump shaft, which is spinning at a high speed during pump operation, is not surrounded by a safety screen. This presents a hazard since the wells start automatically without warning. The City needs to properly encase all pump shafts with safety screen by March 31, 2015.

2. Well Data Sheets

It was noted during the inspection that the Division does not have a Well Data Sheet for Well No. 09. If the City has a Well Data sheet for Well No. 09, a copy needs to be

submitted to the Division by February 28, 2015. If the City does not have a Well Data sheet for Well No. 09, then one must be drafted and submitted to the Division for review and approval by March 31, 2015.

3. Chlorination Operations Plan

   The Division does not have a chlorination operations plan for the City. If the City has a chlorination plan, a copy needs to be submitted to the Division by February 28, 2015. If the City does not have a chlorination operations plan, then one must be drafted and submitted to the Division for review and approval by March 31, 2015. Chlorination operations plan guidance can be provided upon request.

4. Chlorination Data Sheet

   It was noted during the inspection that the Division does not have up to date Disinfection Data Sheets for each disinfection station. If the City has updated Disinfection Data sheets, for each disinfection station, copies need to be submitted to the Division by February 28, 2015. If the City does not have updated Disinfection Data sheets, for each disinfection station, then they must be drafted and submitted to the Division for review and approval by March 31, 2015.

5. Water Storage Tank Inspection and Maintenance Plan

   The Division does not have a copy of the City's Water Storage Tank Inspection and Maintenance Plan. The plan should describe the procedures water system personnel follow when conducting inspections of the tank's interior and exterior. The plan should also include the frequency that the water storage tank will be inspected and cleaned by City personnel and a professional inspection crew. If the City has a Water Storage Tank Inspection and Maintenance Plan, a copy needs to be submitted to the Division by February 28, 2015. If the City does not have a Water Storage Tank Inspection and Maintenance Plan, then one must be drafted and submitted to the Division for review and approval by March 31, 2015. It should be noted that the Division recommends that water storage tanks are professionally inspected and cleaned at least once every five years.

6. Reservoir Data Sheet

   It was noted during the inspection that the Division does not have Reservoir Data Sheets for the Gateway and Zone Two water storage tanks. If the City has Reservoir Data sheets, for the mentioned water storage tanks, copies need to be submitted to the Division by February 28, 2015. If the City does not have Reservoir Data sheets, for the mentioned water storage tanks, then they must be drafted and submitted to the Division for review and approval by March 31, 2015.

7. Booster Pump Data Sheet

   It was noted during the inspection that the Division does not have a Booster Pump Data Sheet for each of the booster pump stations. If the City has Booster Pump Data sheets, for each booster pump station, copies need to be submitted to the Division by February

28, 2015. If the City does not have Booster Pump Data sheets, for each booster pump station, then they must be drafted and submitted to the Division for review and approval by March 31, 2015.

8. Distribution Data Sheet

It was noted during the inspection that the Division does not have Distribution Data Sheet for the water system. If the City has completed a Distribution Data Sheet, a copy needs to be submitted to the Division by February 28, 2015. If the City does not have a completed Distribution Data Sheet, then a data sheet will need to be completed and submitted to the Division by March 31, 2015.

9. Bacteriological Sample Siting Plan

The City's Bacteriological Sample Siting Plan (BSSP) was last revised in 2008. The City shall update its BSSP and submit a copy to the Division for review and approval by March 31, 2015. It should be noted that the updated BSSP is required to have at least one sample from each pressure zone per week.

It should be noted in the BSSP, that in the event of triggered source water monitoring, due to a positive routine bacteriological sample, the City of Patterson has elected to sample all wells.

10. Distribution System Asbestos Monitoring

The Division's records indicate that the City last monitored for asbestos in the distribution system in April 2004, and the sample did not show any detectable concentration of asbestos fibers. Under Title 22, Section 64432.2(a)(3), of the California Code of Regulations, all community water systems must monitor to determine compliance with the MCL for asbestos each nine-year compliance cycle. Therefore, asbestos monitoring was again required by April 2013 in the distribution system. If the City completed distribution system asbestos monitoring in April 2013 please submit the results to the Division. If not, distribution system asbestos monitoring, from a site serviced by an asbestos-cement pipe, must be completed by March 31, 2015.

11. Perchlorate Monitoring

Division records show that the last perchlorate monitoring for Well No. 09 was conducted in November 2011. The City has been instructed to collect a perchlorate sample from Well No. 09 immediately. If the results are non-detect, then Well No. 09 shall return to triennial monitoring. The next perchlorate sample for this well, depending on the upcoming results, shall be due in May 2015.

12. Hexavalent Chromium Initial Monitoring

Initial hexavalent chromium monitoring was completed for all wells in December 2014. Based on the results, all seven City wells were placed on quarterly monitoring. The next Hexavalent Chromium monitoring, for all wells, is due in March 2015.

13. Radium-228 Monitoring

Division records show that the City completed the initial monitoring for Radium-228 in all active wells with the exception of Well No. 09. If the City has completed the initial Radium-228 monitoring for Well No. 09 please submit it to the Division and have the lab submit it via EDT. If the City has not completed the initial Radium-228 monitoring for Well No. 09, then the City must begin quarterly monitoring immediately.

14. Cross-Connection Control

According to the Annual Report to the Division, there are a total of 483 backflow prevention devices in the system and 435 were tested in 2013. All backflow prevention devices must be tested every year. The City shall test all 483 of the backflow prevention devices annually.

According to the 2013 Annual Report to the Division, the last cross-connection control survey was completed in 2005. A cross-connection control survey should be completed every 5 years. The City shall complete a cross-connection control survey in 2015. Please schedule a cross-connection control survey, and inform the Division as to when the survey will take place. Also, please send a copy of the survey findings to the Division.

15. Valve Exercising Plan

The Division does not have a copy of the City's valve exercising plan. If the City has a valve exercising plan, a copy needs to be submitted to the Division by February 28, 2015. If the City does not have a valve exercising plan, then one must be drafted and submitted to the Division for review and approval by March 31, 2015. The valve exercising plan shall include the location of each valve, and what valves will be exercised and when. The plan shall also include a tracking form, which will include how many turns it takes to open and close each valve. This will ensure that all of the valves get exercised on a routine basis.

16. Flushing Plan

The Division does not have a copy of the City's flushing plan. If the City has a flushing plan, a copy needs to be submitted to the Division by February 28, 2015. If the City does not have a flushing plan, then one must be drafted and submitted to the Division for review and approval by March 31, 2015. The flushing plan should include when mandatory flushing will take place. All of the dead-ends that are equipped with blow-off valves shall be scheduled at least annually. The flushing program shall also include a tracking form that can track what sections were flushed and when.

17. Consumer Confidence Report:

The most recent (2013) Consumer Confidence Report (CCR) and certification form were received on November 5, 2014, and are on file. The CCR and certification form are due to the Division by October 1st of each year.

It should also be noted that the CCR must be distributed to the customers by July 1st of each year.

18. Chief Operator

The City water system is classified as a community water system. According to the Division regulations the chief distribution operator must be a D4 certified operator, and the shift distribution operators must be D3 certified operators. The chief distribution operator is in charge of the daily water system operations.

Currently the City meets this requirement.

SECTION II – Water Quality Monitoring

Distribution System Monitoring:

Bacteriological

As per the 2013 Annual Report to the Division, the water system has 6,171 service connections and serves approximately 20,846 people. According to the current bacteriological sample siting plan (BSSP), dated 2008, the City is required to have five distribution system samples per week analyzed for bacteriological quality.

Recent routine bacteriological samples, from January 2012 through December 2014, have been absent of total coliform with the exception of one sample from September 2014. However the repeat samples came back absent of total coliform.

The City's Bacteriological Sample Siting Plan (BSSP) was last revised in 2008. The City shall update its BSSP and submit a copy to the Division for review and approval by March 31, 2015. It should be noted that the updated BSSP is required to have at least one sample from each pressure zone per week.

Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) Monitoring

Stage 2 Disinfection Byproduct Rule (ST2DBPR)

According to the approved ST2DBPR monitoring plan, as required by the ST2DBPR, the City has selected four sites for **quarterly** DBP monitoring. According to the monitoring plan the samples will be taken in the second week of the first month in the quarter. **The TTHM and HAA5 monitoring results for the sampling sites need to be submitted by the lab via EDT. The TTHM and HAA5 results from the monitoring locations need to be associated with sampling points as follows:**

Primary Station Code	Stage 2 Monitoring Site
5010017-900	ST2DBP – 1218 Swan Drive
5010017-901	ST2DBP – 15041 Rogers Road
5010017-902	ST2DBP – 242 Durer Drive
5010017-903	ST2DBP – 1335 Daisy Drive

The next round of ST2DBPR quarterly monitoring must have been sampled during the second week of January 2015.

Lead and Copper (tap monitoring)

The following is a summary of the lead and copper tap monitoring conducted to date:

Summary of Lead and Copper Tap Monitoring

Date Completed	No. of Samples Required	90% Lead (mg/l)	90% Copper (mg/l)
12/02/92	40	0.0014	0.39
08/04/93	40	0.0025	0.29
09/23/98	20	0.0016	0.18
09/05/00	20	<0.005	0.15
08/28/03	30	<0.005	0.094
09/18/06	30	0.0016	0.119
09/01/09	30	0.0018	0.115
08/29/12	30	0.0006	0.070
Next Due 6/2015-9/2015	**30**		

Title 22 of the California Code of Regulations (22CCR), Division 4, Chapter 17.5, Section 64675 requires the City to collect 60 samples under standard tap sampling, and 30 samples under reduced tap monitoring. Currently the City water system conducts reduced tap monitoring. Water systems that monitor annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September.

The next lead and copper tap monitoring shall be conducted between June and September 2015 with a minimum of 30 samples required. Upon completion of the analyses, the results of all tests and the dates of completion of the testing shall be submitted to the Division's Stockton District Office. Form 141A shall also be completed and submitted along with the monitoring results.

Asbestos

The City water system has approximately 18 percent asbestos-cement water mains. Systems that contain asbestos-cement pipes are considered vulnerable to asbestos contamination due to the potential release of asbestos fibers into the water. Monitoring for asbestos in the distribution system is required at least once every nine years. The sample must be collected from a section of the distribution system that is served by an asbestos-cement water main.

The Division's records indicate that the City last monitored for asbestos in the distribution system in April 2004, and the sample did not show any detectable concentration of asbestos fibers. Under Title 22, Section 64432.2(a)(3), of the California Code of Regulations, all community water systems must monitor to determine compliance with the MCL for asbestos each nine-year compliance cycle. Therefore, asbestos monitoring was again required by April 2013 in the distribution system. If the City completed distribution system asbestos monitoring in April 2013 please submit the

results to the Division. **If not, distribution system asbestos monitoring, from a site serviced by an asbestos-cement pipe, must be completed by March 31, 2015.**

Source Water Monitoring:

Groundwater

Bacteriological

Raw wellhead bacteriological monitoring for the system's seven active wells is being conducted on a monthly basis and the results are on file. A review of recent records, December 2012 through December 2014, shows that the City's water system source water has had no total coliform positives.

Chemical

The City conducts monitoring of the chemical quality of all the groundwater sources. The following table is a summary of the last chemical monitoring for the water system's wells:

Summary of Last Groundwater Monitoring

	Inorg.	Nitrate	Nitrite	GM/GP	VOCs	SOCs	Radiological
Well No. 02	06/2013	12/2014	06/2013	06/2013	08/2013	Varies	07/2010
Well No. 05	06/2013	06/2014	06/2013	06/2013	08/2013	Varies	12/2010
Well No. 06	06/2013	12/2014	06/2013	06/2013	08/2013	Varies	03/2012
Well No. 07	08/2014	08/2014	08/2014	08/2014	05/2014	Varies	10/2010
Well No. 08	05/2014	05/2014	05/2014	05/2014	10/2012	Varies	12/2010
Well No. 09	**Missing Perch**	06/2014	06/2014	06/2014	09/2014	Varies	09/2014
Well No. 11	02/2013	02/2014	02/2013	02/2013	02/2013	Varies	02/2013

Inorg. – Inorganics, table 64431-A
Nitrate: Generally, annual nitrate monitoring is required.
GM/GP=General Mineral/General Physical and Secondary Standards, Table 64449-A & B
VOCs=Volatile Organic Chemicals - Table 64444-A SOCs= Atrazine, Simazine, DBCP, and EDB
N. Rad=NATURAL RADIOACTIVITY - Sec 64442

The following table summarizes the monitoring that is due in the future. Dates indicate when monitoring should be conducted for that category.

Summary of Upcoming Required Groundwater Monitoring

	Inorg.	Nitrate	Nitrite	GM/GP	VOCs	SOCs	Radiological
Well No. 02	06/2016	**03/2015**	06/2016	06/2016	08/2016	Varies	07/2016
Well No. 05	06/2016	**06/2015**	06/2016	06/2016	08/2016	Varies	12/2016
Well No. 06	06/2016	**03/2015**	06/2016	06/2016	08/2016	Varies	03/2021
Well No. 07	08/2017	**08/2015**	08/2017	08/2017	05/2017	Varies	10/2019
Well No. 08	05/2017	**05/2015**	05/2017	05/2017	**10/2015**	Varies	12/2016
Well No. 09	06/2017	**06/2015**	06/2017	06/2017	09/2017	Varies	09/2023
Well No. 11	02/2016	**02/2015**	02/2016	02/2016	02/2016	Varies	02/2019

Inorganics:

Routine monitoring is required every three years for active wells.

Well No. 02: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in June 2013. The water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in June 2016.**

****Next perchlorate monitoring is due May 2015**

Well No. 05: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in June 2013. Water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in June 2017.**

****Next perchlorate monitoring is due May 2015**

Well No. 06: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in June 2013. Water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in June 2017.**

****Next perchlorate monitoring is due May 2015**

Well No. 07: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in August 2014. Water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in August 2017.**

****Next perchlorate monitoring is due May 2015**

Well No. 08: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in May 2014. The water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in May 2017.**

****Next perchlorate monitoring is due May 2015**

Well No. 09: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, were last conducted in June 2014. Water produced by the well meets the drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in June 2017.**

****Division records show that the last perchlorate monitoring for Well No. 09 was conducted in November 2011. The City has been instructed to collect a perchlorate sample from Well No. 09 immediately. If the results are non-detect, then Well No. 09 shall return to triennial monitoring. The next perchlorate sample for this well, depending on the upcoming results, shall be due in May 2015.**

Well No. 11: Monitoring of inorganic chemicals for this well, with the exception of perchlorate, was last conducted in February 2013. Water produced by the well meets the primary drinking water standards for these parameters. **The next inorganic chemical monitoring for this well will be due in February 2016.**

****Next perchlorate monitoring is due May 2015**

Hexavalent Chromium Initial Monitoring

Initial hexavalent chromium monitoring was completed for all wells in December 2014. Based on the results, all seven City wells were placed on quarterly monitoring. The next Hexavalent Chromium monitoring, for all wells, is due in March 2015.

Nitrate:

Routine nitrate monitoring is required annually for active wells where the results are below half the MCL, and quarterly for active wells where the results are above half the MCL. The following table summarizes the most recent nitrate concentrations in each well.

Nitrate (as NO3)

	Most Recent Monitoring	Monitoring Interval	Next Monitoring Due
Well No. 02	34.6 mg/l	Quarterly	March 2015
Well No. 05	6.1 mg/l	Annually	June 2015
Well No. 06	29.1 mg/l	Quarterly	March 2015
Well No. 07	17.2 mg/l	Annually	August 2015
Well No. 08	11.5 mg/l	Annually	May 2015
Well No. 09	6.0 mg/l	Annually	June 2015
Well No. 11	3.6 mg/l	Annually	February 2015

Nitrite (as nitrogen):

Routine nitrite monitoring is required every three years for active wells. The following table summarizes the most recent nitrite concentrations in each well. The water produced by the wells meets the primary drinking water standards for this parameter.

Nitrite (as N)

	Most Recent Monitoring	Monitoring Interval	Next Monitoring Due
Well No. 02	< 400.00 ug/l	Three Years	June 2016
Well No. 05	< 400.00 ug/l	Three Years	June 2016
Well No. 06	< 400.00 ug/l	Three Years	June 2016
Well No. 07	< 400.00 ug/l	Three Years	August 2016
Well No. 08	< 400.00 ug/l	Three Years	May 2016
Well No. 09	< 400.00 ug/l	Three Years	June 2016
Well No. 11	< 400.00 ug/l	Three Years	February 2016

General Mineral and General Physical:

Monitoring for these constituents is required every three years for active wells.

Well No. 02: Monitoring of general mineral and general physical constituents for this well was last conducted in June 2013. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in June 2016.**

Well No. 05: Monitoring of general mineral and general physical constituents for this well was last conducted in June 2013. The water produced by the well meets the

drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in June 2016.**

Well No. 06: Monitoring of general mineral and general physical constituents for this well was last conducted in June 2013. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in June 2016.**

Well No. 07: Monitoring of general mineral and general physical constituents for this well was last conducted in August 2014. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in August 2017.**

Well No. 08: Monitoring of general mineral and general physical constituents for this well was last conducted in May 2014. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in May 2017.**

Well No. 09: Monitoring of general mineral and general physical constituents for this well was last conducted in June 2014. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in June 2017.**

Well No. 11: Monitoring of general mineral and general physical constituents for this well was last conducted in February 2013. The water produced by the well meets the drinking water standards for these parameters. **The next general mineral and general physical constituent monitoring for this well will be due in February 2016.**

Volatile Organic Chemicals (VOCs):

Monitoring for these constituents is required every three years for active wells

Well No. 02: VOC monitoring for this well was last conducted in August 2013. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in August 2016.**

Well No. 05: VOC monitoring for this well was last conducted in August 2013. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in August 2016.**

Well No. 06: VOC monitoring for this well was last conducted in August 2013. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in August 2016.**

Well No. 07: VOC monitoring for this well was last conducted in May 2014. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in May 2017.**

Well No. 08: VOC monitoring for this well was last conducted in October 2012. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in October 2015.**

Well No. 09 VOC monitoring for this well was last conducted in September 2014. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in September 2017.**

Well No. 11: VOC monitoring for this well was last conducted in February 2013. The water produced by the well meets the primary drinking water standards for these parameters. **The next VOC monitoring for this well will be due in February 2016.**

Synthetic Organic Chemicals (SOCs):

All SOC monitoring for the City's water system is waived except for atrazine, simazine, dibromochloropropane (DBCP), and ethylene dibromide (EDB). All seven wells shall be monitored for atrazine and simazine every nine years and EDB and DBCP every three years.

Last SOC Monitoring

	Atrazine	DBCP	EDB	Simazine
Well No. 02	06/2012	06/2012	06/2012	06/2012
Well No. 05	06/2012	06/2012	06/2012	06/2012
Well No. 06	06/2012	06/2014	06/2014	06/2012
Well No. 07	06/2012	06/2012	06/2012	06/2012
Well No. 08	05/2014	03/2014	03/2014	05/2014
Well No. 09	01/2012	06/2014	06/2014	01/2012
Well No. 11	11/2007	02/2013	02/2013	11/2007

Next SOC Monitoring

	Atrazine	DBCP	EDB	Simazine
Well No. 02	06/2021	**06/2015**	**06/2015**	06/2021
Well No. 05	06/2021	**06/2015**	**06/2015**	06/2021
Well No. 06	06/2021	06/2017	06/2017	06/2021
Well No. 07	06/2021	**06/2015**	**06/2015**	06/2021
Well No. 08	05/2023	03/2017	03/2017	05/2023
Well No. 09	01/2021	06/2017	06/2017	01/2021
Well No. 11	11/2016	02/2016	02/2016	11/2016

Natural Radioactivity (Gross Alpha, Radium-226, Radium-228, Uranium):

Well	Last Monitored Date	Gross Alpha	Count Error	GA + CE	Uranium
2	07/2010	3.83	2.67	6.0995	6.86
5	12/2010	4.85	2.67	7.1195	1.28
6	03/2012	2.44	2.44	4.514	2.36
7	10/2010	1.92	2.64	4.164	1.44
8	12/2010	4.49	3	7.04	0.787
9	09/2014	1.26	1.45	2.4925	2.41
11	02/2013	3.27	1.55	4.5875	N/A

Upcoming Radiological Monitoring

Well No. 02: Gross Alpha and Uranium shall be monitored by 07/2016

Well No. 05: Gross Alpha and Uranium shall be monitored by 12/2016

Well No. 06: Gross shall be monitored by 03/2021

Well No. 07: Gross shall be monitored by 10/2019

Well No. 08: Gross Alpha and Uranium shall be monitored by 12/2016

Well No. 09 Gross shall be monitored by 09/2023

Well No. 11: Gross shall be monitored by 02/2019

The water produced by all of the wells meets the primary drinking water standards for this parameter.

Division records show that the City completed the initial monitoring for Radium-228 in all active wells with the exception of Well No. 09. If the City has completed the initial Radium-228 monitoring for Well No. 09 please submit it to the Division and have the lab submit it via EDT. If the City has not completed the initial Radium-228 monitoring for Well No. 09, then the City must begin quarterly monitoring immediately.

City of Patterson

1 Plaza
P.O. Box 667
Patterson, California 95363
Phone (209) 895-8000

February 12, 2015

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Re: Response to Annual Inspection Findings dated January 22, 2015

Dear Mr. Sahota:

The findings in the inspection memorandum prepared by Mr. Brian Kidwell have been reviewed and the City is preparing to address each issue.

SECTION I – Items Requiring Attention

1. **Item 1 Pump Safety Screens.** All missing pump shaft safety screens are in place.
2. **Items 2. – 9.** are being prepared and will be submitted to the Division no later than March 31, 2015.
3. **Item 10 Distribution System Asbestos Monitoring .** Asbestos monitoring was not completed in 2013. The City will perform asbestos monitoring from a site serviced by asbestos – cement pipe no later than March 31, 2015.
4. **Item 11. Perchlorate Monitoring.** The Perchlorate monitoring for Well 9 was not completed in 2014. The well was sampled for Perchlorate as directed on January 20, 2015 and the result was Non-Detect. This lab analysis will be uploaded to the SWRCB database by FGL Laboratories. Well 9 will be sampled with the other well sites in May 2015.
5. **Item 12. Hexavalent Chromium Initial Monitoring.** Initial monitoring for Chromium 6 will continue on a quarterly basis. The next round of samples will be completed in March 2015.
6. **Item 13. Radium -228 Monitoring.** The initial monitoring was not completed for Well 9 and the City will begin quarterly monitoring immediately.
7. **Cross-Connection Control.** All backflow prevention devices are tested annually and we will continue to comply with cross-connection rules. A cross-connection control survey was completed in 2010 and a copy will be submitted as soon as possible. The survey due in 2015 will be completed no later than May 31, 2015 and a copy of the results will be submitted to the Division as soon as it is available.
8. **Item 15 Valve Exercising plan and Item 16 Flushing Plan.** These items will be submitted to the Division no later than March 31, 2015.

9. **Item 17 Consumer Confidence Report (CCR).** The 2014 CCR will be completed and distributed to our customers no later than July 1, 2015. A copy will be submitted to the Division no later than October 1, 2015.

Section II – Water Quality Monitoring

Distribution Monitoring:

Bacteriological

An updated Bacteriological Sample Site Plan (BSSP) will be submitted to the Division no later than March 31, 2015.

Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) Monitoring

Stage 2 Disinfection Byproduct Rule (ST2DBPR)

The next round of quarterly monitoring was completed in January 2015 and the results uploaded to the Division via EDT.

Lead and Copper (tap monitoring)

30 samples will be collected and analyzed between June 2015 and July 2015. The results and dates of all testing will be submitted along with form 141A to the Division.

Asbestos

Asbestos monitoring was not completed in 2013. The City will perform asbestos monitoring from a site serviced by asbestos – cement pipe no later than March 31, 2015.

Source Water Monitoring:

Groundwater

The City shall follow the monitoring schedule as listed in this section of the memorandum.

Please contact me if you have any questions about this response or if there are any further issues to address.(209) 895-8162 office or (209) 652-0843 cell randrade@ci.patterson.ca.us email.

Sincerely,
Robert Andrade

Deputy Director of Operations and Maintenance
Department of Public Works